

FIG. 1

PRIOR ART

Title: Switch Fabric Scheduling With Fairness And Priority Consideration
Applicants: Gireesh Shrimali, et al. Docket: RAMB-01013US0
Appl. No.: Unknown Atty: Kirk J. DeNiro, Esq.
Filing Date: July 7, 2003 Phone: (415) 369-9660
Express Mail No.: EV 332013468 US

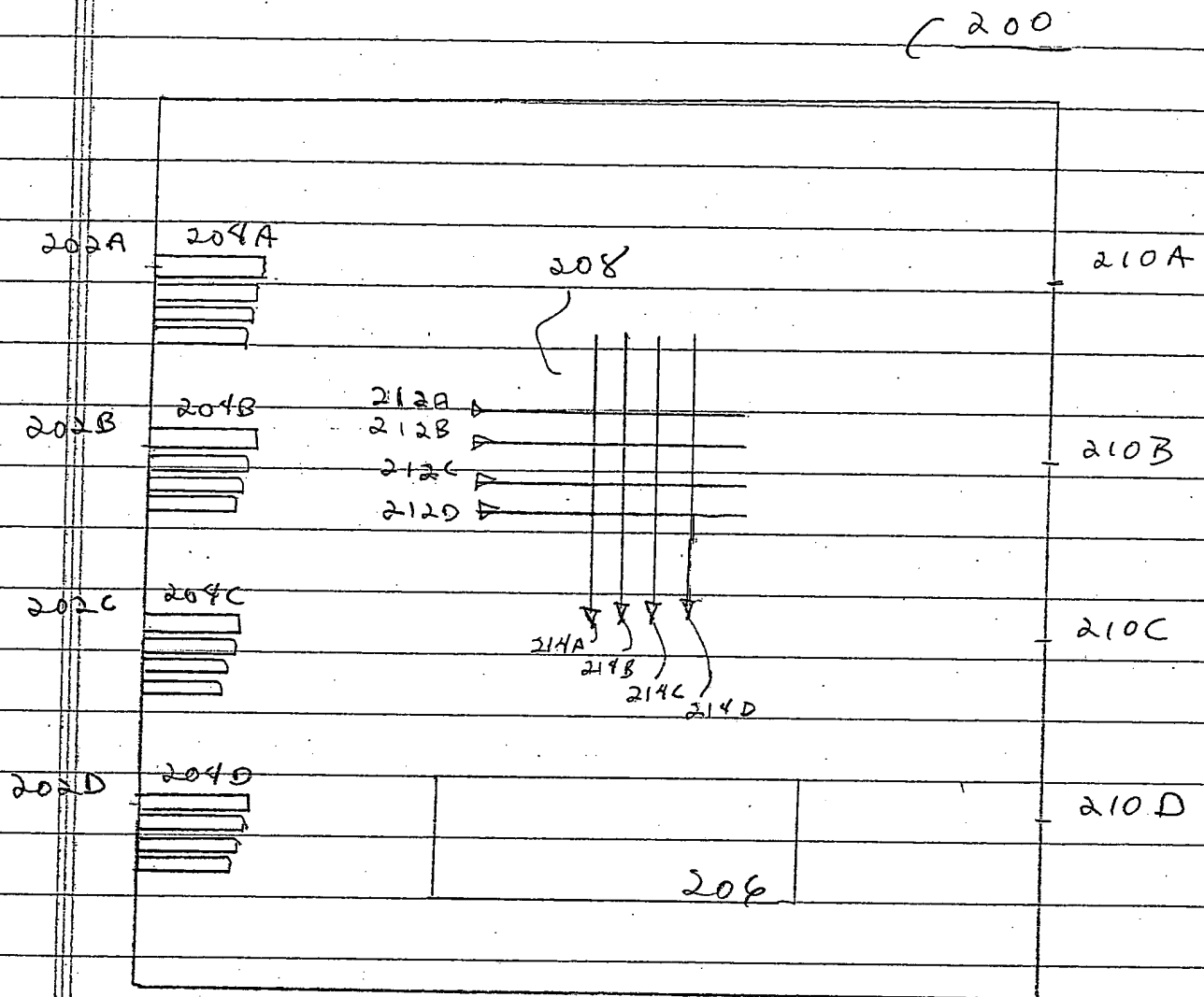


FIG. 2

PRIOR ART

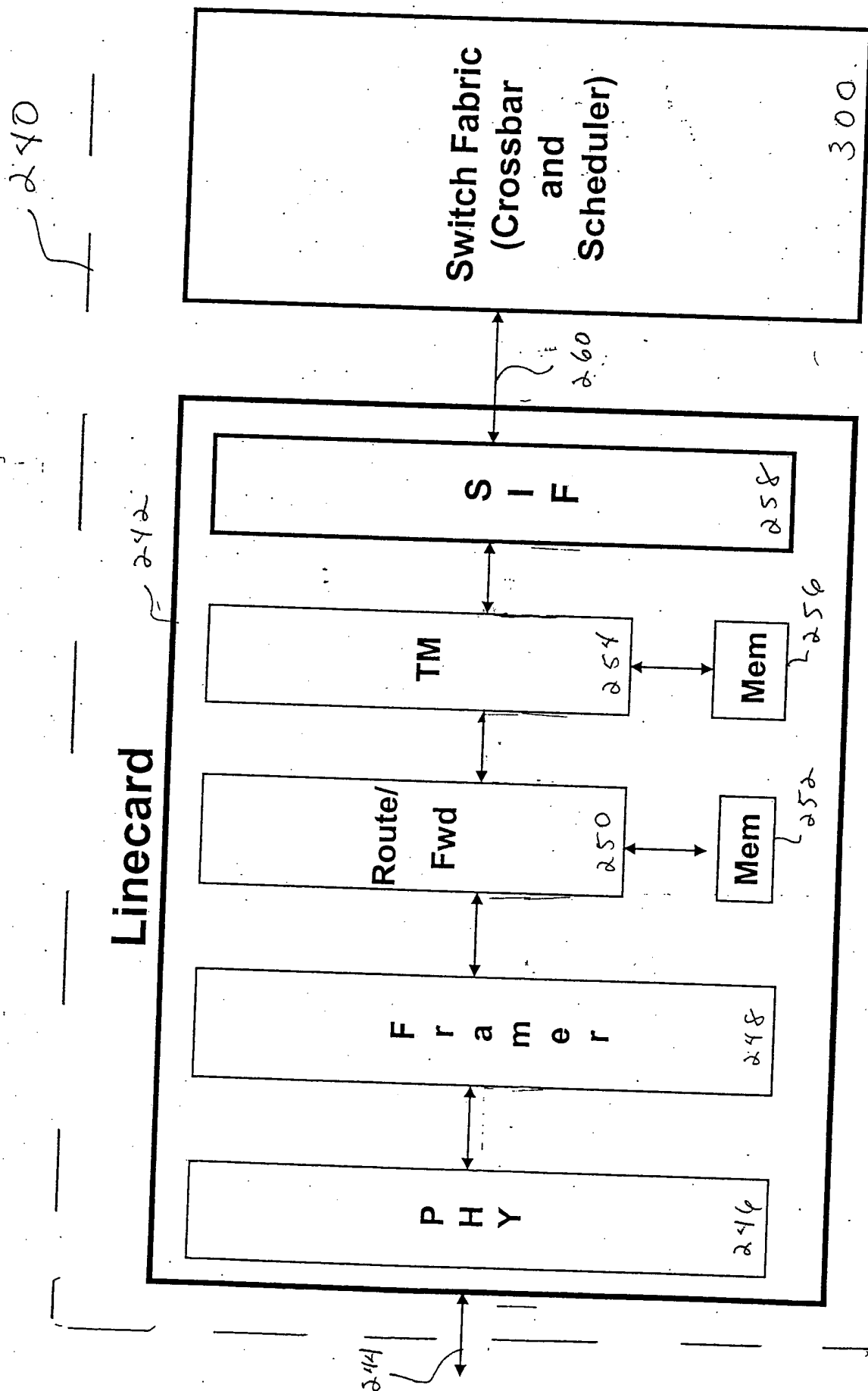
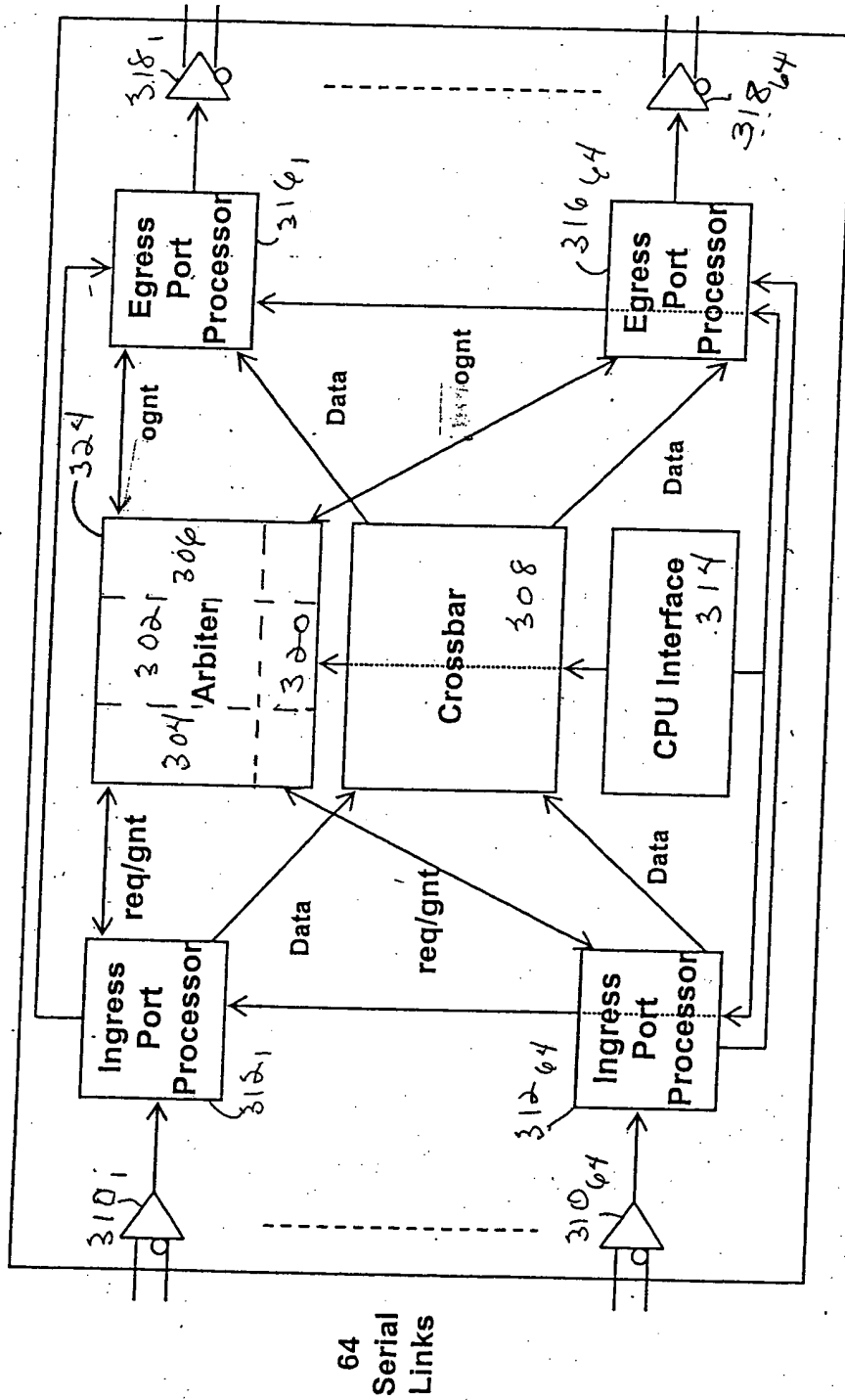


Fig. 3



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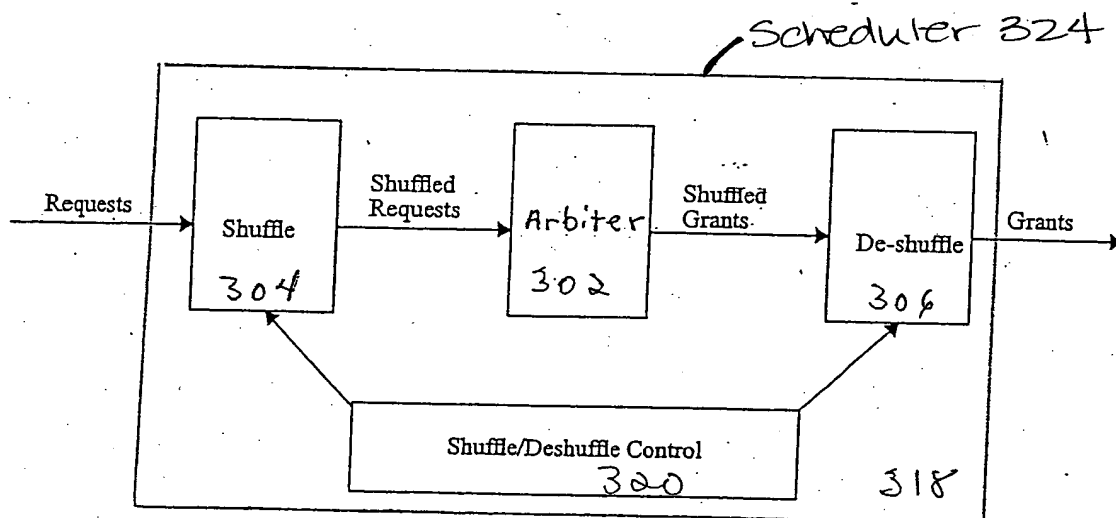


FIG. 5

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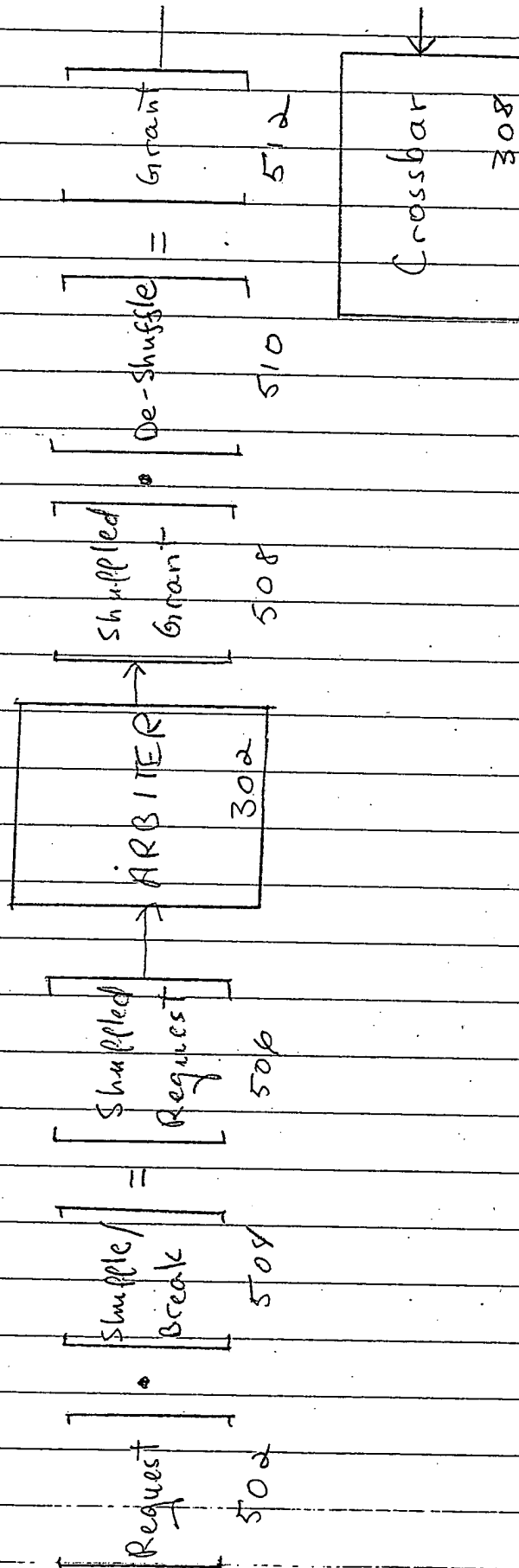


Fig. 6

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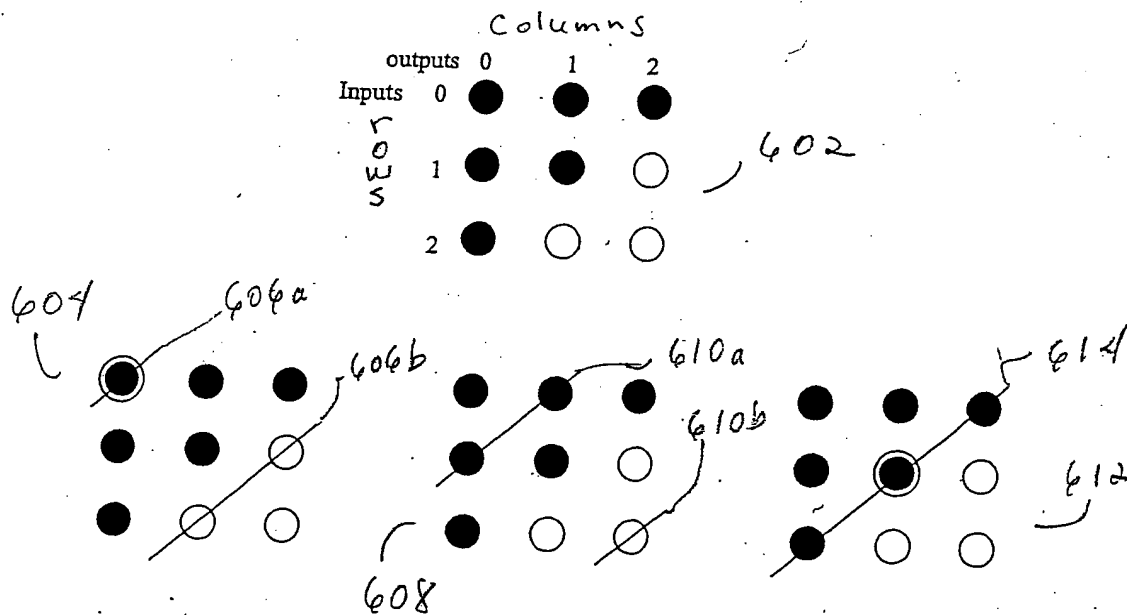


FIG. 7

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Row or Col Position	0	1	2	0	1	2	0	1	2
Calculated Shuffle Control	1	2	0	0	2	1	2	1	0
Row Shuffle	1	2	0	0	2	1	2	1	0
Col Shuffle	1	2	0	1	2	0	2	1	0
Cell Time	0			1			2		3

F167.8

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Row or Col Position	0	1	2	0	1	2	0	1	2
Calculated Shuffle Control.	1	2	0	0	2	1	2	1	0
Row Shuffle	1	2	0	1	2	0	2	1	0
COL Shuffle	1	2	0	0	2	1	2	1	0
Cell Time	0			1			2		3

Fig. 9

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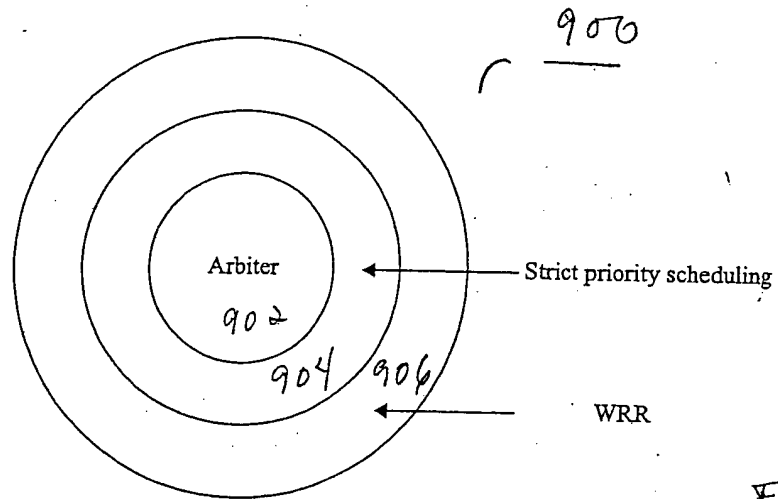


FIG. 10

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Inputs
 0
 1
 2

0
 0
 0
 0
 0
 0
 0
 0

1000

F16.11

in out

0 → 0
 1 → 0
 2 → 0

weights

2 3 1

1100

F16.12

Cell Time

Credits	0 → 0	0	1	2	3	4	5	6	7	8
Credits	1 → 0	2	2	2	2	2	2	2	1	0
Credits	2 → 0	3	2	2	1	1	0	0	0	0
grants		1	1	0	0	0	0	0	0	0
	1 → 0	2 → 0	1 → 0	2 → 0	2 → 0	1 → 0	2 → 0	0 → 0	0 → 0	1 → 0

potential unused grants

F16.13

← runner

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Cell Time	0	1	2	3	4	5	6	7	8
credits/ priority	0 → 0	2/0	2/0	2/0	2/0	1/0	1/0	0/1	2/0
credits/ priority	1 → 0	3/0	2/0	1/0	1/0	1/0	1/0	0/1	3/0
credits/ priority	2 → 0	1/0	1/0	0/1	-1/1	-1/1	-2/1	-2/1	-1/1
grants	1 → 0	2 → 0	1 → 0	2 → 0	0 → 0	2 → 0	0 → 0	1 → 0	0 → 1

credits = ϕ for subset of
input → output pairs → Update Priority

higher priority input-output
pairs have no requests;
lower priority pair can receive grant
lower priority pair can receive grant

F16.14

↑ U P O A + 4

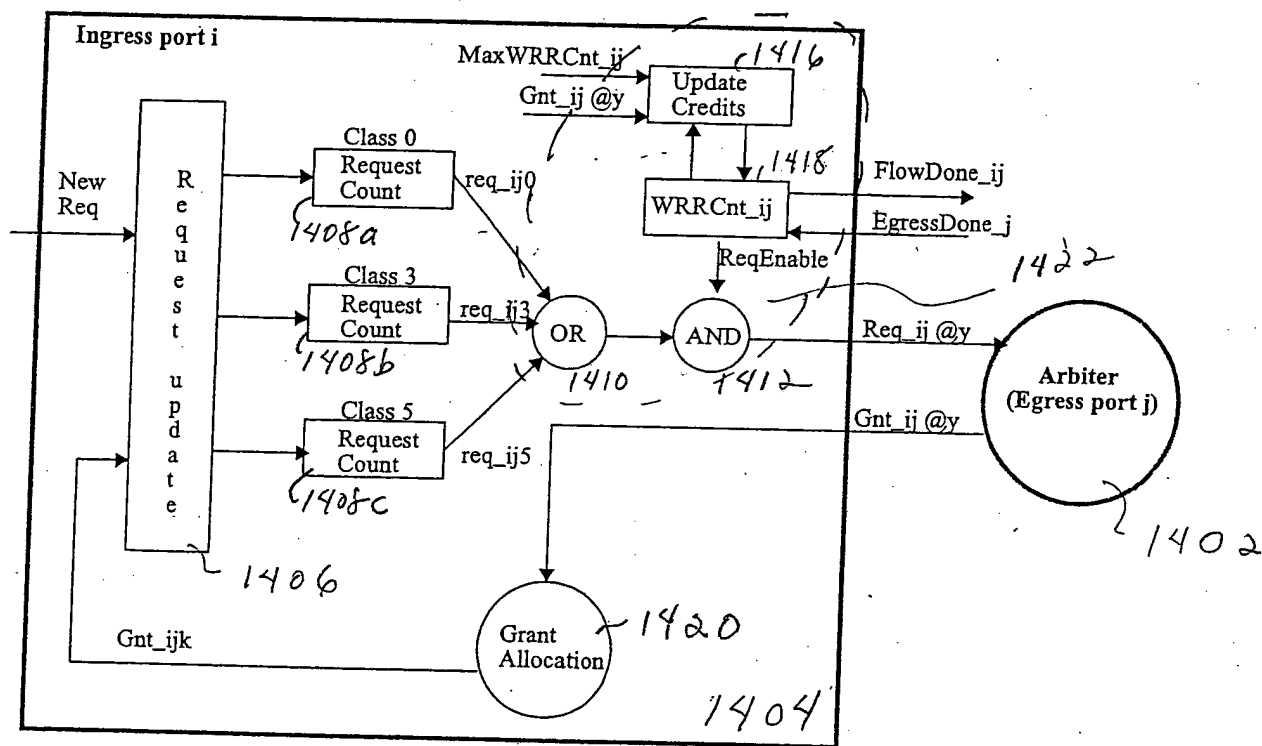
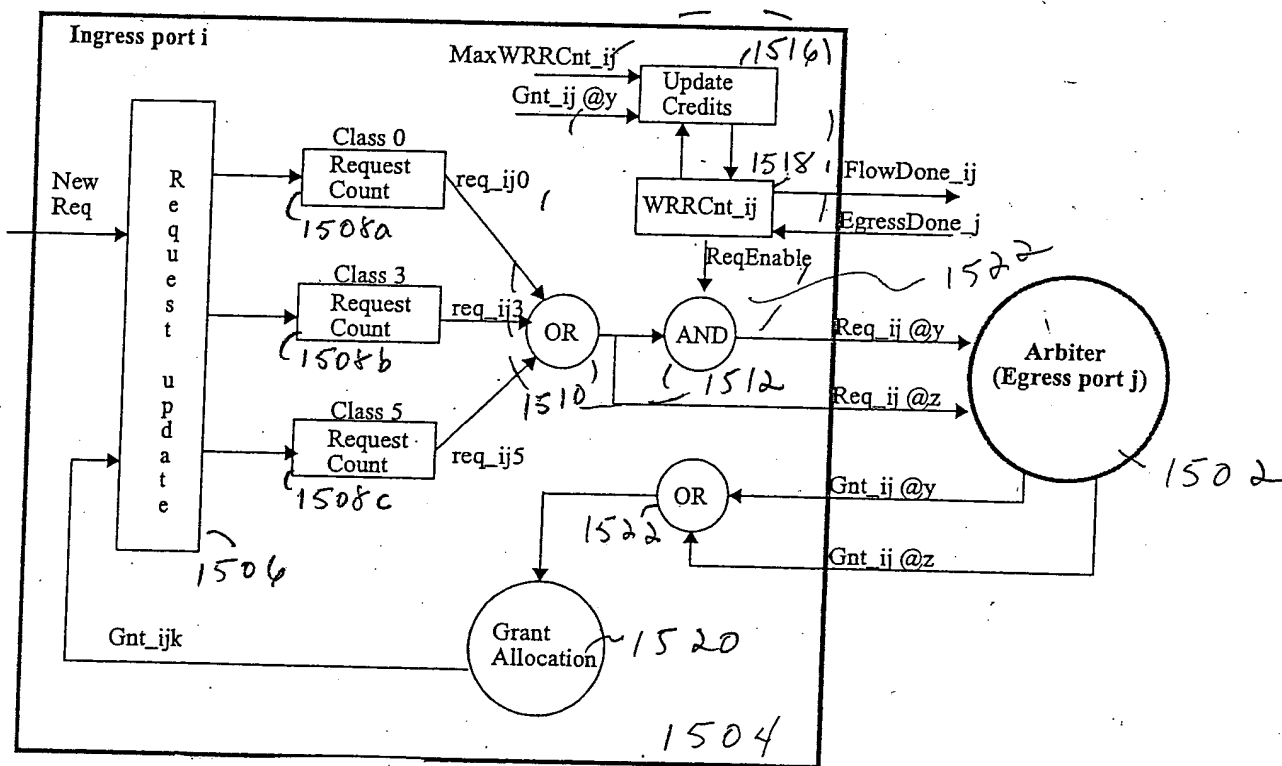


Fig. 15



F16.16